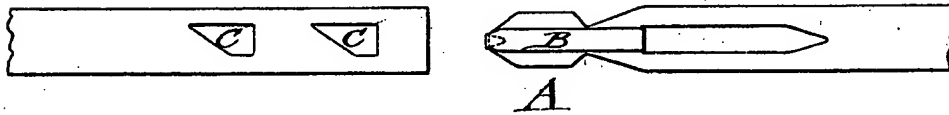


**J. G. ANGELL.**  
**Cotton-Bale Ties.**

No. 149,424.

Patented April 7, 1874.

*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



**WITNESSES:**

A Bernersendof.  
Adquich

**INVENTOR:**

BY

**ATTORNEYS.**

AM. PHOTO-LITHOGRAPHIC CO. N. Y. (OSBORN'S PROCESS)

# UNITED STATES PATENT OFFICE.

JOHN G. ANGELL, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN COTTON-BALE TIES.

Specification forming part of Letters Patent No. 149,424, dated April 7, 1874; application filed December 20, 1873.

### *To all whom it may concern:*

Be it known that I, JOHN G. ANGELL, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Bale-Tie, of which the following is a specification:

In the accompanying drawing, Figure 1 represents the ends of my improved bale-tie detached from each other; Fig. 2, the same connected; and Fig. 3, a vertical longitudinal section of the same on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

In the drawing, A represents the arrow or spear shaped head of one end of the band, which is made of oblong shape, its width being equal to two-thirds of the entire band, being connected with the band by a neck equal to one-third of the width of the band. The band tapers off toward the neck, the front part of head A being also tapering off toward the end or point, which is equal in width to one-third of the band A. Strip B, being one-third of the width of the band, is cut centrally from the same from a point near the neck distant at least the full width of the band toward the rear part. The rear end of strip B is also tapered off, the whole strip then folded forward, so that it passes along the neck to the front edge or point of the head, where the tapering end is bent around, fastening the

strip to the head. The band is thereby strengthened at the neck, its point of greatest strain, and offers thereby greater resistance. The other end of the band is provided with one or more slots or perforations, C, at suitable distances from each other. The width of each slot C is equal to one-third of the full width of the band; its front side is arranged under right angles to the parallel sides, while the length of the rear side is nearly equal to the width of the head B, so that the same, by being turned sidewise, passes freely diagonally through slot C, and forms the tie by locking across the narrower front side of the slot. The pressure of the baled material keeps both ends of the band together, with the strengthening-strip neatly and firmly attached under the band, the whole forming a very simple, handy, and strong tie for bales of all kinds, barrels, and other purposes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A band-iron bale-tie having slots C near one end, and at the other an arrow-head having the rear of its sides obtuse-angled, and re-enforced at the neck by a strip, B, which is bent over the end of the arrow-head, as and for the purpose specified.

JNO. G. ANGELL.

Witnesses:

RICHARD ANGELL, M. D.,  
WM. R. FRISBIE.